Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARY E. CRAVER, JEAN M. BUONGIORNE
and MICHAEL J. HAIGHT

Appeal No. 1998-2523
Application No. 08/778,644

ON BRIEF

Before OWENS, LIEBERMAN, and JEFFREY T. SMITH, ***Administrative Patent Judges***.

JEFFREY T. SMITH, ***Administrative Patent Judge.***

DECISION ON APPEAL

Applicants appeal the decision of the Primary Examiner finally rejecting claims 18 to 22 and 27 to 31 all of the claims in the application. We have jurisdiction under 35 U.S.C. § 134.

BACKGROUND

Appellants' invention relates generally to color photography and compositions useful in the processing of color reversal photographic elements. Specifically, the invention relates to a bleach replenisher composition comprising a ferric complex of ethylenediaminetetraacetic acid and having a pH of from 5.4 to about 5.6. The replenisher composition is formed from used processing solutions that have been collected and combined with additional components to regenerate the used compositions. Claim 18, which is representative of the claimed invention, appears below:

> 18. A pH adjusted regenerated bleach replenisher composition comprising a ferric complex of ethylenediaminetetraacetic acid and having a pH of from 5.4 to about 5.6,
>
> said pH adjusted regenerated bleach replenisher composition provided by mixing:
>
> at least 50% of the overflow from a ferric-ethylenediaminetetraacetic acid bleaching solution with
>
> a bleach regenerator composition having a pH of from about 6.0 to about 6.5, and comprising hydrobromic acid and lithium, potassium or ammonium bromide salt sufficient to provide a total bromide ion concentration of from about 210 to about 240 g/l, at least from about 80 to about 97% of said bromide ion being provided by said lithium,

> potassium or ammonium bromide salt, and a complex of ferric ion and ethylenediaminetetraacetic acid, the ferric ion being present in an amount of from about 50 to about 58 g/l,
>
> in at least a 1:1 volume ratio to form a regenerated bleach replenisher,
>
> followed by adjusting the pH of said regenerated bleach replenisher to from about 5.4 to about 5.6.

CITED REFERENCES

As evidence of unpatentability, the Examiner relies on the following references:

Ishikawa et al. (Ishikawa)	5,002,860	Mar. 26, 1991
Okauchi et al. (Okauchi)	4,232,118	Nov. 4, 1980

The Examiner rejected claims 18 to 22 and 27 to 31 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Ishikawa or Okauchi. The Examiner has also rejected the claims 18 to 22 and 27 to 31 under 35 U.S.C. § 103(a) as obvious over the combination of Ishikawa and Okauchi. (Answer, p. 5.)

We have carefully reviewed the claims, specification and applied prior art, including all of the arguments advanced by both the Examiner and Appellants in support of their respective positions. This review leads us to conclude that the

rejections are not well founded. We need to address only claim 18, which is the sole independent claim.

Rather than reiterate the conflicting viewpoints advanced by the Examiner and Appellants concerning the above-noted rejections, we refer to the Answer, Brief and Reply Brief for the full exposition thereof.

Our initial inquiry is directed to the scope of the claimed subject matter. During patent prosecution, claims are to be given their broadest reasonable interpretation consistent with the specification, and the claim language is to be read in view of the specification as it would be interpreted by one of ordinary skill in the art. ***In re Morris,*** 127 F.3d 1048, 1053-54, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); ***In re Zletz,*** 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); ***In re Sneed,*** 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983); ***In re Okuzawa,*** 537 F.2d 545, 548, 190 USPQ 464, 466 (CCPA 1976).

The patentability of a product recited in product-by-process claims is based on the product itself. ***In re Thorpe,*** 777 F.2d 695, 697, 227 USPQ 964, 965-66 (Fed. Cir. 1985); ***Brown,*** 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

Our construction of the subject matter defined by Appellants' claim 1 is that the claimed subject matter is directed to a "bleach replenisher composition" which contains a ferric complex of ethylenediaminetetraacetic acid. The bleach replenisher composition has a pH of from about 5.4 to about 5.6. Furthermore, it is noted that the claimed subject matter contains the transitional term, "comprises" and therefore permits the inclusion of other elements or materials, e.g., a source of bromide ion and organic or inorganic acid. ***See In re Baxter*** 656 F.2d, 679, 686, 210 USPQ 795, 802 (CCPA 1981).

We observe that the specification discloses that the "bleach replenisher composition" can be formulated by mixing a bleaching composition overflow with a bleach regenerator composition in a ratio of at least 1:1 up to about 9:1. (Specification, p. 9, ¶ 2.) The bleach regenerator composition includes a source of bromide ion and organic or inorganic acid suitable to adjust the pH of the composition. (Specification, p. 10, ll. 11 through p. 11, l. 2.) Furthermore, the presence of additional components including a corrosion inhibitor is disclosed. (Specification, p. 11, ll. 3 to 10.) Thus, we determine that the regenerated bleach replenisher composition would contain some proportion of the components of the bleach regenerator composition.

Ishikawa teaches bleaching solution that comprise as a bleaching agent a ferric complex salt of ethylenediaminetetraacetic acid and a ferric 1,3 diaminopropanetetaacetate complex salt. (Col. 3, ll. 10 to 20.) Ishikawa discloses the bleaching solution has a minimal reduction in bleaching power and prevents bleaching fog. (Col. 3, ll. 44 to 48.) In addition to the bleaching agent, the bleaching solution can contain a bleaching accelerator, rehalogenating agents such as, ammonium bromide and further additives to adjust the pH including organic or inorganic acids. Ishikawa also discloses bleaching solutions comprising the combination of a tank solution and a replenisher composition. The bleaching solution contains ferric ammonium ethylenediaminetetraacetic (dihydrate) and ammonium bromide. (Col. 73, ll. 1 to 19.) The running bleaching solutions, process numbers 1 and 4, are described as having a pH of 5.5. (Cols., 73 to 74, Table 2.)

Okauchi describes a bleaching composition that comprises 150.0g/l of ferric-ethylenediaminetetraacetic acid ammonium and 80g/l of ammonium bromide. The pH of the composition was adjusted to 5.6. (Col. 15, l. 65 to col. 16, l. 4.) In a different embodiment, Okauchi describes a bleaching composition that comprises 110.0g/l of ferric-ethylenediaminetetraacetic acid ammonium, 80g/l of potasium

bromide and 30 ml/l of hydrobromic acid. The pH of the composition was adjusted to 5.7. (Col. 13, ll. 57 to 64.)

The Examiner has failed to determine that the bleaching compositions of either Ishikawa or Okauchi contain the required amount of components such as ferric complex of ethylenediaminetetraacetic acid and bromide ion to anticipate or render obvious the claimed invention. The Examiner asserts the bleaching regenerator can be present in an infinitesimal amount that would not provide sufficient regeneration of the overflown bleaching composition. (Answer, p. 4.) We do not agree. The Examiner is reminded that the claimed invention is read in view of the specification as it would be interpreted by one of ordinary skill in the art. ***See Morris, supra.*** The specification page 9 discloses the ratio of bleaching composition overflow to bleach regenerator composition ranges from at least 1:1 up to about 9:1. Thus, the measurable amounts of bleaching regenerator composition would be contained in the final product. The fact that both Ishikawa and Okauchi describe a bleaching solution that contain ferric complex of ethylenediaminetetraacetic acid and have a pH of 5.5 or 5.6, respectively, does not anticipate the claimed invention since the claimed invention contains additional components derived from the bleaching regenerator composition.

Based upon the above, we conclude that neither Ishikawa or Okauchi describe a bleaching solution that anticipates or renders obvious the subject matter of claim 18.

The Rejection of the claims over combination of Ishikawa and Okauchi

The Examiner has rejected the subject matter of claims 18 to 22 and 27 to 31 under 35 U.S.C. § 103(a) as obvious over the combination of Ishikawa and Okauchi. However, the Examiner has not stated any reasons why one of ordinary skill in the art would have been motivated to combine the teachings of Ishikawa and Okauchi to render the claimed subject matter unpatentable under 35 U.S.C. § 103 (a). It must be remembered that the burden of establishing a ***prima facie*** case of unpatentability rests upon the Examiner. ***In re Oetiker,*** 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); ***In re Piasecki,*** 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). It is therefore incumbent on the Examiner to provide a factual basis for providing the motivation to combine the teachings of the prior art. In the present case, the Examiner has not discharged that burden.

CONCLUSION

The rejection of claims 18 to 22 and 27 to 31 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Ishikawa

is reversed. The rejection of claims 18 to 22 and 27 to 31 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Okauchi is reversed. The rejection of claims 18 to 22 and 27 to 31 under 35 U.S.C. § 103(a) as obvious over the combination of Ishikawa and Okauchi is reversed.

REVERSED

TERRY J. OWENS ***Administrative Patent Judge***	)	
PAUL LIEBERMAN ***Administrative Patent Judge***	)	**BOARD OF PATENT APPEALS AND INTERFERENCES**
JEFFREY T. SMITH ***Administrative Patent Judge***	)	

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